

REMARKS

Claims 1, 3-5, 7-18, 20-22, and 24-35 were pending in the current application. Claims 1, 5, 9, 14, 18, 22, 26, and 31 have been amended without introducing any new matter. No claims have been cancelled in the current response. New claims 36-37 have been added. Claims 1, 3-5, 7-18, 20-22, and 24-37 are currently pending.

Rejections Under 35 U.S.C. § 103(a)

Claims 1, 4, 5, 8, 9, 11-15, 17, 18, 20-22, 25, 26, and 28-32 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Okada, European Patent Application No. EP 0939360 A2 ("Okada") and further in view of Schimke et al. U.S. Publication No. 2002/0174197 ("Schimke") and Numata et al. US 5,625,840 ("Numata"). Applicant respectfully traverses the rejection.

Claim 1 as amended sets forth:

a **parallel-to-serial converter** in a second one of the at least two paths, said parallel-to-serial converter being within said disk drive housing and coupled to said ATA disk drive coupling element, wherein said parallel-to-serial converter is capable of receiving a set of parallel ATA disk drive signals **from a parallel ATA disk** operatively coupled to said ATA disk drive and emitting a set of serial ATA disk drive signals.

(Claim 1 as amended; emphasis added)

In contrast, none of the cited references teaches a serial-to-parallel converter as claimed. Okada and Schimke fail to teach an apparatus including a parallel-to-serial converter. Okada merely discloses a switching mechanism to connect a disk to either one of two array controllers (Okada, p. 1). As for

Schimke, the reference discloses fiber channel (FC) interfaces coupled to a FC backplane (Schimke, para. [0020]). Moreover, the other cited reference, Numata also fails to teach a parallel-to-serial converter as claimed.

According to Numata, a disk interface circuit 26 includes a parallel-to-serial converter 82 for converting parallel data *from disk FIFO 56* within a memory controller 24 to serial data to be transmitted to a hard disk 14 (Numata, col. 8, ln. 28-38; Figures 2, 4, and 5). In other words, the parallel-to-serial converter 82 in Numata receives parallel data from the memory controller 24 and converts the parallel data to serial data to be written to the hard disk 14. The parallel-to-serial converter 82 does not receive parallel ATA disk drive signals from a parallel ATA disk and emit serial ATA disk drive signals. Therefore, Numata also fails to teach the parallel-to-serial converter as claimed.

Since none of Okada, Schimke, nor Numata, alone or in combination, teaches the limitation of claim 1 set forth above, claim 1 is patentable over Okada, Schimke, and Numata. Withdrawal of the rejection is respectfully requested.

For the reason discussed above with respect to claim 1, claims 5, 9, 14, 18, 22, 26, and 31 as amended are patentable over Okada, Schimke, and Numata. Withdrawal of the rejection is respectfully requested.

Claims 4, 8, 11-13, 15, 17, 20-21, 25, 28-30, and 32 depend, directly or indirectly, from claims 1, 5, 14, 18, 22, and 31, respectively. Thus, claims 4, 8, 11-13, 15, 17, 20-21, 25, 28-30, and 32 are patentable over Okada, Schimke, and Numata. Withdrawal of the rejection is respectfully requested.

Claims 3, 7, 10, 16, 20, 24, 27, and 33-35 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Okada, Schimke, and Numata, and further in view of U.S. Patent No. 6,742, 068 to Gallagher et al. ("Gallagher").

Applicant respectfully traverses the rejection on the remaining claims.

Claims 3, 7, 10, 16, 20, 24, 27, and 33-35 depend, directly or indirectly, from claims 1, 5, 14, 18, 22, and 31, respectively, and thus, include the limitations set forth in their respective base claims.

For the reason discussed above with respect to claim 1, none of Okada, Schimke, and Numata discloses a parallel-to-serial converter as claimed. Further, Gallagher also fails to disclose such a parallel-to-serial converter. According to Gallagher, a server interconnect printed circuit board 68 contains an **Enhanced Parallel Port** (EPP) which allows the motherboard 67 to gather vital product data and other configuration information, enables the battery backup functions, solicits on exceptional system conditions, signals the control station via the control bus, and accesses other system interfaces; and a **Legacy Parallel Port** (LGP) that interfaces the control station to the COMM board which contains other information/control about the system's configuration and environment (Gallagher, col. 10, lines 1-27). In sum, Gallagher merely mentions two parallel ports. Gallagher does not disclose, suggest, or imply any parallel-to-serial converter as claimed.

Since none of Okada, Schimke, Numata, and Gallagher, alone or in combination, teaches a parallel-to-serial converter as claimed, claims 3, 7, 10, 16, 20, 24, 27, and 33-35 are patentable over Okada, Schimke, Numata, and Gallagher. Withdrawal of the rejection is respectfully requested.

New claims 36-37

New claims 36 and 37 have been added. It is respectfully submitted that new claims 36 and 37 are patentable over the references cited for at least the following reasons.

New claim 36 sets forth:

adapting the ATA disk drive to operate on a serial ATA disk and a parallel ATA disk by

...

coupling a parallel-to-serial converter to the adaptor to receive a set of parallel ATA disk drive signals from a parallel ATA disk operatively coupled to the ATA disk drive and to emit a set of serial ATA disk drive signals.

(New claim 36; emphasis added)

In contrast, none of the references cited teaches the limitation set forth above for the reason discussed above with respect to claims 1 and 3. Therefore, claim 36 is patentable over the references cited and allowance of claim 36 is earnestly solicited.

New claim 37 depends directly from claim 36, and thus, is patentable over the references cited. Allowance of claim 37 is earnestly solicited.

CONCLUSION

For at least the foregoing reasons, the present application is believed to be in condition for allowance, and such action is earnestly solicited. If the Examiner perceives any further obstacle to allowing the present application, he is invited to contact the undersigned at (408) 720-8300.


Pursuant to 37 C.F.R. 1.136(a)(3), Applicant hereby requests and authorizes the U.S. Patent and Trademark Office to (1) treat any concurrent or future reply that requires a petition for extension of time as incorporating a petition for extension of time for the appropriate length of time and (2) charge all required fees, including extension of time fees and fees under 37 C.F.R. 1.16 and 1.17, to Deposit Account No. 02-2666.

Respectfully submitted,

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Date: _____

1/30/2007


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